

IN THE CLAIMS:

Please amend the claims according to the following listing, in which insertions are indicated by underline and deletions are indicated by strikethrough or double brackets. This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1. (Currently Amended) An elongate, bar-shaped light guide having an end face at a longitudinal end thereof, as well as a light-emitting face and two internal side faces extending in a longitudinal direction of the guide,

wherein when light from a light source is incident on the end face, the light enters into the light guide, is reflected by the internal side faces and is emitted from the light-emitting face, and a concentrating position of lights reflected by one side face and a concentrating position of lights reflected by the other side face are different from each other, and

wherein the internal side faces cause the light emitted from the light-emitting face to be concentrated outwardly of the light guide into a line shape having an area less than that of the light-emitting face, focusing positions of lights reflected by the two internal side faces are spaced away from the light-emitting surface outwardly of the light guide, the two internal side surfaces are oval arc curves or paraboloid curves, and curved surfaces of the oval arc curves or paraboloid curves have differently shaped areas such that light emitted after being reflected by the two curved surfaces focus at different distances from the curved surfaces.

Claim 2. (Previously presented) The light guide according to Claim 1, wherein said light guide is integrally formed as a unitary member.

Claim 3. (Previously presented) The light guide according to Claim 1, wherein said light guide includes two substantially half pieces connected together, and oval arcs or paraboloids, which constitute reflective faces, are formed on the substantially half pieces.

Claim 4. (Previously presented) The light guide according to Claim 3, wherein a light scattering part is formed in connecting faces of said substantially half pieces together.

Claim 5. (Currently Amended) An elongate, bar-shaped light guide having a longitudinal end face, as well as an emitting face and two internal side faces extending in a longitudinal direction of the light guide, wherein :

lights incident on the end face enter the light guide, are reflected by the internal side faces, and emitted from the emitting face,

wherein the internal side faces cause the light emitted from the light-emitting face to be concentrated outwardly of the light guide into a line shape having an area less than that of the light-emitting face,

focusing positions of lights reflected by the two internal side faces are spaced away from the light-emitting surface outwardly of the light guide, and

sectional shapes of both of said two internal side faces are oval arc curves, and a difference in focal distance between the oval arc curves causes focusing positions of lights reflected by the two internal side faces to be different.

Claim 6. (Currently Amended) An elongate, bar-shaped light guide having an end face at a longitudinal end thereof, as well as a light-emitting face and internal side faces extending in a longitudinal direction of the light guide, wherein:

lights incident on the end face enter the light guide, are reflected by the internal side faces, and emitted from the emitting face, wherein

sectional shapes of the internal side surfaces have two oval arc curved areas, and focusing positions of reflected lights differ from one oval arc curve to the other,

the internal side faces cause the light emitted from the light-emitting face to be

concentrated outwardly of the light guide into a line shape having an area less than that of the light-emitting face,

the focusing positions of lights reflected by the two internal side faces are spaced away from the light-emitting surface outwardly of the light guide, and wherein

the curved surfaces of the oval arc curves have differently shaped areas such that light emitted after being reflected by the two curved surfaces focus at different distances from the curved surfaces.

Claim 7. (Previously presented) An image reader comprising an illuminating unit comprising the light guide according to Claim 1, a light source provided at an end face at a longitudinal end of the light guide, and a lens array for converging on a light receiving element lights radiated from the illuminating unit toward a document and reflected by the document or transmitted by the document, and a box housing the illuminating unit, the lens array and the light receiving element.

Claim 8. (Previously presented) The image reader according to Claim 7 including two of said illuminating units, and the illuminating units are so arranged as to cause lights emitted from the light-emitting faces of the light guides thereof to irradiate the same area of an illuminated face of the document.

Claim 9. (Previously presented) An image reader comprising an illuminating unit comprising the light guide according to Claim 5, a light source provided at an end face at a longitudinal end of the light guide, and a lens array for converging on a light receiving element lights radiated from the illuminating unit toward a document and reflected by the document or transmitted by the document, and a box housing the illuminating unit, the lens array and the light receiving element.

Claim 10. (Previously presented) The image reader according to Claim 9 including two of said illuminating units, and the illuminating units are so arranged as to cause lights emitted from the light-emitting faces of the light guides thereof to irradiate the same area of an illuminated face of the document.

Claim 11. (Previously presented) An image reader comprising an illuminating unit comprising the light guide according to Claim 6, a light source provided at an end face at a longitudinal end of the light guide, and a lens array for converging on a light receiving element lights radiated from the illuminating unit toward a document and reflected by the document or transmitted by the document, and a box housing the illuminating unit, the lens array and the light receiving element.

Claim 12. (Previously presented) The image reader according to Claim 11 including two of said illuminating units, and the illuminating units are so arranged as to cause lights emitted from the light-emitting faces of the light guides thereof to irradiate the same area of an illuminated face of the document.

Claim 13. (Previously presented) The light guide of claim 1, wherein the light guide is shaped such that light is emitted in a line shape through said light-emitting face.

Claim 14. (Previously presented) The light guide of claim 5, wherein the light guide is shaped such that light is emitted in a line shape through said emitting face.

Claim 15. (Previously presented) The light guide of claim 6, wherein the light guide is shaped such that light is emitted in a line shape through said light-emitting face.

Claim 16. (Previously presented) The light guide of claim 1, further comprising a bottom face opposite to said light-emitting face, and a light scattering part formed with the bottom face.

Claim 17. (Previously presented) The light guide of claim 5, further comprising a bottom face opposite to said emitting face, and a light scattering part formed with the bottom face.

Claim 18. (Previously presented) The light guide of claim 6, further comprising a bottom face opposite to said light-emitting face, and a light scattering part formed with the bottom face.

Claim 19. (Previously presented) The light guide of claim 1, further comprising a bottom face opposite to said light-emitting face, and the light-emitting face includes portions disposed at different distances from the bottom face.

Claim 20. (Previously presented) The light guide of claim 6, further comprising a bottom face opposite to said light-emitting face, and the light-emitting face includes portions disposed at different distances from the bottom face.